

## ABSTRACT

The present invention is based on the discovery of autoantibodies in cancer patients specific for a number of antigens that are normally intracellular, including homeobox protein HOXA7, homeobox protein HOXB7, ADP-ribosylation factor 1 (Arf-1), ATP-dependent iron transporter ABC-7, and a novel protein encoded by a *EcoRI/XhoI* fragment of bacteriophage  $\lambda$  clone 44B.1 deposited under ATCC accession No.     [N]    . The presence of these autoantibodies can be correlated with neoplastic processes in patients, and therefore detection of autoantibodies (or detection of expression of the antigens by other means) can be used as a component of a cancer screening program. The present invention provides such screening assays. In addition, the studies leading to the identification of the predictive autoantigens have also succeeded in identifying a hitherto unknown antigen that is disclosed herein.

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